



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/553,235	10/14/2005	Nobukazu Ikeda	SUGI0157	1287
24203	7590	09/04/2007		
GRIFFIN & SZIPL, PC SUITE PH-1 2300 NINTH STREET, SOUTH ARLINGTON, VA 22204			EXAMINER PATEL, HARSHAD R	
			ART UNIT	PAPER NUMBER
			2855	
			MAIL DATE	DELIVERY MODE
			09/04/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/553,235

Applicant(s)

IKEDA ET AL.

Examiner

Harshad Patel

Art Unit

2855

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 August 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 6, 7, 10 and 13-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6, 7, 10, 13-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 August 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 2855

1. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

2. Claims 1-3, 6, 7, 13, 14 and 18-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1, it is unclear as to whether a thin film forming a temperature sensor (line 8) and a metal film forming temperature sensor (line 16) and a heater mounted on rear face (line 9) and a heater formed on insulating film (line 17) are same or different elements. Furthermore, it is unclear as to the phrase on line 13-15, "the thin film comprises an insulating film" since at line 8 it refers that the thin film forms a temperature sensor. How can a thin film comprise an insulation film also form a temperature sensor?

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-3, 7, 10, 17, 18, 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Seki et al. (6,981,410) in view of Kinard et al. (5,393,351) (hereinafter Seki or Kinard).

Kinard teaches a corrosion resistant thermal mass flow rate sensor comprising a sensor part (103) comprising a corrosion resistant metal substrate (124, col. 3, line 53-65) having an outer

Art Unit: 2855

peripheral part and a central part, wherein the central part comprises a thin plate having a thickness that is less than the thickness of the outer peripheral part (Fig. 1), a thin film temperature sensor (121A, 121B), a heater (120) mounted on the rear face side of the fluid contacting surface of the substrate, a sensor base (102) equipped with the sensor part installed thereupon to hermetically secure (col. 5, line 67- col. 6, line 5). Seki also teaches the structure for the fluid inlet and fluid outlet and the substrate having a thickness of less than 150 μm (col. 3, lines 31-32) Seki does not explicitly teach the protection film disposed to cover the insulation film and the metal film. Kinard, however, teaches a protective film (266, 268) covering the insulating film and the metal film. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide a protective film over the metal film or the insulating film since such protecting films are provided to protect the metal from the environmental effects. As to providing a specific type of gasket for sealing the substrate and the body, it would be within the scope of a skilled individual to use any known sealing mechanism to prevent leakage. Seki teaches the thickness of the insulating film to be between several thousand Å to several μ . It would be within the scope of a skilled individual to use any thickness that would not affect the measurement results.

5. Claims 6 and 13-16, are rejected under 35 U.S.C. 103(a) as being unpatentable over Seki in view of Kinard as applied to claims 1-3, 7, 10, 17, 18, 21 and 22 above, and further in view of Azima (6,062,077).

Seki in view of Kinard teaches all the features of the instant invention except for the sensing device being used in conjunction with a controller. Azima teaches the combined arrangement of a flow sensor and a controller.

Art Unit: 2855

6. Claims 19, 20 rejected under 35 U.S.C. 103(a) as being unpatentable over Seki in view of Kinard as applied to claims 1-3, 7, 18, 21 and 22 above, and further in view of Tamamori et al. (hereinafter Tamamori).

Seki in view of Kinard teaches all the features of the instant invention except for the metal film formed from Cr/Pt/Cr film. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to the metal film as taught by Tamamori for the metal film of Seki since such a use of a specific material for the metal film would be within the scope of a skilled individual based on experiments performed for better results.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Art Unit: 2855

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Harshad Patel whose telephone number is (571) 272-2187. The examiner can normally be reached on Monday-Thursday (6:30 AM-5:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Lefkowitz can be reached on (571) 272-2180. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Harshad Patel
Primary Examiner
Art Unit 2855

HP
8/30/07